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Complete if Known **Application Number** 10/681,742 Substitute for form 1449/PTO October 7, 2003 Filing Date INFORMATION DISCLOSURE First Named Inventor John T. STULTS et al. STATEMENT BY APPLICANT (Use as many sheets as necessary) Art Unit 2878 288, **Examiner Name** Unassigned of 9 29191-704.201 Sheet Attorney Docket Number

			ATENT DOC		
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
W		US-4,443,319	04-17-1984	Chait et al.	
171		US-4,483,885	11-20-1984	Chait et al.	
		US-5,296,114	03-22-1994	Manz	· · · · · · · · · · · · · · · · · · ·
		US-5,358,618	10-25-1994	Ewing et al.	
		US-5,393,975	02-28-1995	Hail et al.	
		US-5,423,964	06-13-1995	Smith et al.	
		US-5,599,432	02-04-1997	Manz et al.	
		US-5,624,539	04-29-1997	Ewing et al.	
		US-5,800,690	09-01-1998	Chow et al.	
		US-5,833,861	11-10-1998	Afeyan et al.	
		US-5,856,671	01-05-1999	Henion et al.	
		US-5,858,188	01-12-1999	Soane et al.	
		US-5,858,195	01-12-1999	Ramsey	
		US-5,872,010	02-16-1999	Karger et al.	
		US-5,885,470	03-23-1999	Parce et al.	
		US-5,917,184	06-29-1999	Carson et al.	
		US-5,935,401	08-10-1999	Amigo	
		⊍S-5,958,202	09-28-1999	Regnier et al.	
_ †		US-5,965,001	10-12-1999	Chow et al.	
		US-5,969,353	10-19-1999	Hsich	- AT
		US-5,993,633	11-30-1999	Smith et al.	
		US-6,001,229	12-14-1999	Ramsey	
		US-6,010,607	01-04-2000	Ramsey	
		US-6,010,608	01-04-2000	Ramsey	
		US-6,012,902	01-11-2000	Parce	
		US-6,033,546	03-07-2000	Ramsey	
		US-6,054,034	04-25-2000	Soane et al.	
		US-6,056,860	05-02-2000	Amigo et al.	
		US-6,068,749	05-30-2000	Karger et al.	
		US-6,086,243	07-11-2000	Paul et al.	
		US-6,110,343	08-29-2000	Ramsey et al.	
aV.		US-6,123,798	09-26-2000	Gandhi et al.	
417		US-6,139,734	10-31-2000	Settlage et al.	
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Substitute f	or form 1449/PTO	Application N	umber	10/681,742	2
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	MENT BY APPLICANT		rventor	John T. ST	ULTS et al.
	s many sheets as necessary)	Art Unit		2878	
		Examiner Nam	ne	Unassigne	d
Sheet	2 of 9	Attorney Dock	et Number	29191-704	.201
	U.	S. PATENT DOC	UMENTS		
117	US-6,149,870	11-21-2000	Parce et al.		
7,	US-6,156,181	12-05-2000	Parce et al.		
	US-6,159,739	12-12-2000	Weigl et al.	·	
	US-6,176,962-B1	01-23-2001	Soane et al.		
	US-6,187,190-B1	02-13-2001	Smith et al.		
	US-6,231,737-B1	05-15-2001	Ramsey et al.		
1	US-6,238,538-B1	05-29-2001	Parce et al.		
	US-6,240,790-B1	06-05-2001	Swedberg et	al.	
 	US-6,245,227-B1	06-12-2001	Moon et al.		
	US-6,277,641-B1	08-21-2001	Yager		
	US-6,280,589-B1	08-28-2001	Manz et al.		
	US-6,284,113-B1	09-04-2001	Bjornson et a	J.	
	US-6,284,115-B1	09-04-2001	Apffel		
	US-6,318,970-B1	11-20-2001	Backhouse		
1 1	US-6,322,682-B1	11-27-2001	Arvidsson et	al.	
	US-6,337,740-B1	01-08-2002	Parce		
 	US-6,342,142-B1	01-29-2002	Ramsey		
	US-6,368,562-B1	04-09-2002	Yao		
	US-6,375,817-B1	04-23-2002	Taylor et al.		
	US-6,394,942-B1	05-28-2002	Moon et al.		
	US-6,409,900-B1	06-25-2002	Parce et al.		
<u> </u>	US-6,413,401-B1	07-02-2002	Chow et al.		
	US-6,417,510-B2	07-09-2002	Moon et al.		
	US-6,423,198-B1	07-23-2002	Manz et al.		
	US-6,432,311-B2	08-13-2002	Moon et al.		
	US-6,444,461-B1	09-03-2002	Knapp et al.		
	US-6,450,047-B2	09-17-2002	Swedberg et		
	US-6,454,924-B2	09-24-2002	Jedrzejewski	et al.	
	US-6,454,938-B2	09-24-2002	Moon et al.		
	US-6,459,080-B1	10-01-2002	Yin et al.		
	US-6,461,516-B2	10-08-2002	Moon et al.		
	US-6,462,337-B1	10-08-2002	Li et al.		
V	US-6,464,866-B2	10-15-2002	Moon et al.		-,- <u>-</u> -
197	US-6,465,776-B1	10-15-2002	Moini et al.		
raminer gnature	Vanna O1 1	•	Date Considered	7/2	20/14

EXAMINER: Initial if reference considered, whether of not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Sinds of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-03)
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	*	Application		plete if Knowi 10/681,742		
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	MENT BY APPLICAN	-	First Named Inventor		LTS et al.	
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Sheet	3 of 9	Attorney Do	cket Number	29191-704.2	01	
_		U.S. PATENT DO	CUMENTS			
17	US-6,475,363-B1	11-05-2002	Ramsey			
	US-6,475,441-B1	11-05-2002	Parce et al.			
	US-6,481,648-B1	11-19-2002	Zimmermanr	et al.		
	US-6,491,804-B2	12-10-2002	Manz et al.			
	US-6,495,016-B1	12-17-2002	Nawracala		·-	
	US-6,514,399-B1	02-04-2003	Parce et al.			
	US-6,517,234-B1	02-11-2003	Kopf-Sill et a			
	US-6,524,456-B1	02-25-2003	Ramsey et al			
	US-6,555,067-B1	04-29-2003	Gandhi et al.			
	US-6,569,324-B1	05-27-2003	Moon et al.			
	US-6,576,896-B2	06-10-2003	Figeys et al.			
	US-6,596,988-B2	07-22-2003	Corso et al.			
	US-6,602,472-B1	08-05-2003	Zimmermanı			
	US-6,605,472-B1	08-12-2003	Skinner et al			
	US-6,607,644-B1	08-19-2003	Apffel, Jr.			
	US-6,621,076-B1	09-16-2003	van de Goor			
	US-6,627,882-B2	09-30-2003	Schultz et al.			
	US-6,632,655-B1	10-14-2003	Mehta et al.			
	US-6,681,788-B2	01-27-2004	Parce et al.			
	US-6,695,009-B2	02-24-2004	Chien et al.			
	US-6,709,559-B2	. 03-23-2004	Sundberg et	al.		
	US-6,733,645-B1	05-11-2004	Chow			
	US-RE034,757	10-18-1994	Smith et al.			
	US-2001/0037979-A1	11-08-2001	Moon et al.			
	US-2002/0036140-A1	03-28-2002	Manz et al.			
	US-2002/0041827-A1	04-11-2002	Yager et al.			
	US-2002/0100714-A1	08-01-2002				
	US-2002/0110902-A1	08-15-2002				
	US-2002/0117517-A1	08-29-2002				
	US-2002/0121487-A1	09-05-2002			···	
	US-2002/0123153-A1	09-05-2002				
	US-2002/0139931-A1	10-03-2002				
	US-2002/0158195-A1	10-31-2002		t al.		
	US-2002/1070825-A1	11-21-2002				
	US-2003/0000835-A1	01-02-2003				
V	US-2003/0017609-A1	01-23-2003	Yin et al.	.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

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			Complete if Known			
form 1449	/PTO		Application N	umber	10/681,742	
ATION I	DISC	LOSURE	Filing Date		October 7, 2003	
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Sheet 4 of 9			Attorney Dock	cet Number	29191-704.201	
-		U.S. 1	PATENT DOC	UMENTS		
US-200	3/00267	740-A1	02-06-2003	Staats		
US-200	3/00297	724-A1	02-13-2003	Derand et al.		
US-200	3/00476	80-A1	03-13-2003	Figeys et al.		
US-200	3/00669	059-A1	04-10-2003	Andersson et	al.	
US-200	3/00732	260-A1	04-17-2003	Corso		
US-200	3/00820	80-A1	05-01-2003	Zimmermann	et al.	
US-200	3/00896	605-A1	05-15-2003	Timperman		
US-200	3/00896	06-A1	05-15-2003	Parce et al.		
US-200	3/01067	799-A1	06-12-2003	Covington et	al.	
US-200	3/01115	99-A1	06-19-2003	Staats		
US-200	3/01467	757-A1	08-07-2003	Aguero et al.		
US-200	3/01489)22-A1'	08-07-2003	Knapp et al.		
US-200	3/01530	007-A1	08-14-2003	Chen et al.		
US-200	3/01809	065-A1	09-25-2003	Yobas et al.		
US-200	4/00969	960-A1	05-20-2004	Burd Mehta e	t al.	
	4	//				
	US-200	US-2003/00297 US-2003/00297 US-2003/00297 US-2003/00476 US-2003/00820 US-2003/00820 US-2003/00896 US-2003/01115 US-2003/01467 US-2003/01467 US-2003/01489	U.S. I US-2003/0026740-A1 US-2003/0029724-A1 US-2003/0047680-A1 US-2003/0066959-A1 US-2003/0082080-A1 US-2003/0089605-A1 US-2003/0089606-A1 US-2003/0111599-A1 US-2003/0146757-A1 US-2003/0148922-A1 US-2003/0180965-A1 US-2003/0180965-A1	ENT BY APPLICANT many sheets as necessary) 4 of 9 Attorney Dock U.S. PATENT DOC US-2003/0026740-A1 02-06-2003 US-2003/0029724-A1 02-13-2003 US-2003/0047680-A1 03-13-2003 US-2003/0066959-A1 04-10-2003 US-2003/0073260-A1 04-17-2003 US-2003/0082080-A1 05-01-2003 US-2003/0089605-A1 05-15-2003 US-2003/0089606-A1 05-15-2003 US-2003/011599-A1 06-12-2003 US-2003/011599-A1 06-12-2003 US-2003/0146757-A1 08-07-2003 US-2003/0148922-A1 08-07-2003 US-2003/0153007-A1 08-14-2003 US-2003/0180965-A1 09-25-2003 US-2003/0180965-A1 09-25-2003	ENT BY APPLICANT many sheets as necessary) Art Unit Examiner Name 4 of 9 Attorney Docket Number U.S. PATENT DOCUMENTS US-2003/0026740-A1 02-06-2003 Staats US-2003/0029724-A1 02-13-2003 Derand et al. US-2003/0047680-A1 03-13-2003 Figeys et al. US-2003/0066959-A1 04-10-2003 Andersson et US-2003/0073260-A1 04-17-2003 Corso US-2003/0082080-A1 05-01-2003 Zimmermann US-2003/0089605-A1 05-15-2003 Timperman US-2003/0089606-A1 05-15-2003 Parce et al. US-2003/011599-A1 06-12-2003 Covington et US-2003/011599-A1 06-12-2003 Staats US-2003/0146757-A1 08-07-2003 Aguero et al. US-2003/0148922-A1 08-07-2003 Knapp et al. US-2003/0180965-A1 09-25-2003 Chen et al. US-2003/0180965-A1 09-25-2003 Yobas et al. US-2004/0096960-A1 05-20-2004 Burd Mehta et	

Signature Considered Considered

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Substitute fo	or form 144	9/PTO		Application Number	10/681,742	
INFORM	IATION	DISC	LOSURE	Filing Date	October 7, 2003	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT			First Named Inventor	John T. STULTS et al.	
(Use as	many shee	ts as nec	cessary)	Art Unit	2878	
				Examiner Name	Unassigned	
Sheet	5	of	9	Attorney Docket Number	29191-704.201	

Examiner Cite Initials* No.1		Foreign Patent Document Country Code* - Number* - Kind Code* (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document Where Relevant Pas Relevant Figures	sages or
	_	EP-0653631-B1	11-02-1994	Aclara BioSciences, Inc.	
		GB-2,379,554	.03-12-2003	Diagnoswiss S.A.	
		WO-91/11015-A1	07-25-1991	The Rockefeller	
		WO-96/04547-A1	02-15-1996	Lockheed Martin Energy Systems, Inc.	
		WO-96/36425-A1	11-25-1996	Cornell Research Foundation, Inc.	
		WO-00/41214-A1	07-13-2000	North-Eastern University	
		WO-00/62039-A1	10-19-2000	North-Fastern University	
		WO 02/30486-A2	04-18-2002	Fluidigm Corporation	
		WO-02/45865-A1	06-13-2002	Amersham-Biosciences AB	
		WO-02/47913-A1	06-20-2002	Gyros AB	
		WO-02/55990-A2	07-18-2002	Music Foundation for Research Development	
		WO-02/80222-A1	10-10-2002	Ecole Polytechnique	
		WO-03/54488-A1	07-03-2003	STAATS, Sau Lan Tang	

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			NON PATE	NT LITERATURE DOCUM	MENTS			
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Examiner C Initials* N	lo.1		pu	blisher, city and/or country where		T²		
					nced BioAnalytical Services, Inc.			
				nicrofluidic handling system". culicensepress1.html>>. Downlo	ooded on May 0, 2002, 2 mages	_		
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					Professor Barry L. Karger, Ph.D.			
				ance separation technology for p		1		
				ress/precorp111901a.html>>. D lymer microfluidic devices". Ta	ownloaded May 9, 2002, 3 pages.			
	DECI	CDIC, NO	nger, et ur., - re	iyinor inicronuluk uevices - Ta	i ama (2002), 30:20/-28/			
				uidic devices connected to fuse- 9), 71:3292-3296.	silica capillaries with minimal dead—			
					sts, and whole human blood by	<u> </u>		
				trospray ionization-mass spectro				
				". J Am Soc Mass Spectrometry rofabricated polymer devices for		ļ		
	peptio		nalysis by elect		spectrometry". Anal. Chem. (1999),			
				sposable poly(methylmethacryla	te)-based microfluidic module for	<u> </u>		
	protei	n identif		pelectrospray ionization-tandem		Γ.		
					ochannels and electrospray nozzles			
	using	PDMS o	casting techniqu	ies". Sensors and Actuators (200	02), B 4311:1-7.			
					ectrophoresis/mass spectrometry			
	1439.			nan plasma". Analytical Chemis	stry (April 1, 2001), 73(7)1432-			
				nano-electrospays .				
	pages				ml>>. Downloaded May 9, 2002, 2			
	FIGE	YS, Dan	iel, et al., "A m	icrofabricated device for rapid p	rotein identification by			
	micro	electrosp	pray ion trap m	ass spectrometry". Anal. Chem.	(1997) 69:3153 - 3160.			
Examiner	1	1/1		Date	NUT 7/28/24			

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Examiner Initials*	Cite No. ¹		p	ublisher, city and/or country	where published		T²
				oflow solvent gradient de			
						Anal. Chem. (1998) 70:3721- n a microfabricated device	
			identification by	electrospray ionization ma			
		GEROMA	NOS, S., et al., "I	nJection adaptable Fine Io			-
}		Flow Nano	-electrospray". R	apid Commun. Mass Spec	trom (1998) 12:	551-556.	-
		GEROMA	NOS, S., et al., "T	uning of an electrospray i	onization source	for maximum peptide-ion	
		transmissio	on into a mass spe	ctrometer". Anal. Chem. (2	2000) 72(4)777-	790.	سنت
		• •		"Microfabricated polymer	injector for dire	ct mass spectrometry	<u></u>
		coupling".	Proteomics (2002	2), 2:405-412.			
		HAYES, R 193:237-26		ollision-induced dissociat	on" Methods i	n Enzymalagy (1990),	
				ELDI-TOF MS for diagno	stic proteomics"	Analytical Chemistry	 - -
		1 ' '	003) 149-155.				ļ <u>.</u> .
	-			ted plastic microfluidic de em. (2001) 73:2048-2053.	vices with ESI-A	4S for drug screening and	-
		KAMEOK	A, Jun, et al., "A	n electrospray ionization s	ource for integra	ntion with microfluidics".	-
		l		/2002), 74:5897-5901.			
				polymeric microfluidic ch	ip for CE/MS d	etermination of small	<u> </u>
		molecules"	. Anal. Chem. (2	001), 73:1935-1941.			
	_			ofabricated PDMS multich		r electrospray ionization	 -
		mass spect	rometry". J. Am.	Soc. Mass. Spectrom (200	12:433-469.		<u> </u>
	· -			ofabrication of polydimeth (2001), 924:137-145.	ylsiloxane elect	rospray ionization emitters".	†
					4mmmman ! = = !e : e !	ian anittan an	ļ
	-			aturized multichannel electronic devices)". Electronic devices)".			
				"Microchip electrophoretic	immunoassay	for scrum cortisol". Anal.	\vdash
			96) 68:18-22.				<u> </u>
	_			battomole-sensitivity micrection". Anal. Chem. (199		opray source with time-of- 1.	-
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Examiner Initials*	Cite No.1		pu	serial, symposium, catalog, etc.), date, p blisher, city and/or country where publis	shed.	T²		
	-			on of microfluidic devices to proteomi	cs research" Molecular &			
			oteomics (2002) 1	•	,			
	-	LI, Jianjun	et al., "Rapid and	sensitive separation of trace level pro	tein digests using			
				led to a quadrupole - time-of-flight m	ass spectrometer".			
		I L lianium	resis (2000) 21:19 et al. "Separation	8-210. and identification of peptides from g	el-isolated membrane proteins			
	_	using a mid	rofabricated device	e for combined capillary electrophore				
		spectromet	y". Anal. Chem. (2000) 72:599-609.	1. 1. 1. 1. 1. 1. 1. 1.			
				uidic devices on polymer substrates for aboratory (1999), Richland, WA, US.		_		
•				opment of multichannel devices with a pmetry". Anal. Chem. (2000) 72:3303		_		
				Mass spectrometry for the detection of differentially expressed				
		proteins: a	comparison of sur	face-enhanced laser desorption/ioniza	tion/ionization and capillary			
		electropho	resis/mass spectro	metry". Rapid Comm. In Mass Specti al., "Analytical microdevices for mas	s spectrometry" Trends in			
	-		Chemistry (2000)					
	_	PREMST/	LLER, Andreas,	et al., "High-Performance liquid chromatography - electrospray				
		Chem. (20)	01) 73:2390-2396.	using monolithic capillary columns f				
		RAMSEY	R.S., et al. "Gene	erating electrospray from microchip d	evices using electroosmotic	-		
		1		istry (3/15/1997), 69(6)1174-1178.				
	_			microfabricated fluidic device for pe	rforming two-dimensional	_		
		1		nal. Chem. (2000) 72:5244-5249.				
	_			Polymer microspray with an integrated	thick-Film microelectrode".	 		
				/2001), 73(22)5353-5357.				
				ope, et al., "Capillary electrophoresis		_		
		1	• •	tions". Electrophoresis (2003), 3837-		<u></u>		
				A fully integrated monolithic microck (2000) 72:4058-4063.	nip electrospray device for mass			
		SELBY, D mass spect	rometry". Journal	rect quantification of alkaloid mixture of Mass Spectrometry (1998) 33:123	es by electrospray ionization			
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Initials*	Initials* No.1				blisher, city and/or country			T ²	
		SRINIVASAN, Thara, "ESI and/or CE on microfluidic chips". Literature review (September 18, 2002) 14 pages.							
		2002)	14 p	iges.					
		SVED	SVEDBERG, Malin, et al., "Sheathless electrospray from polymer microchips". Anal. Chem.						
				934-3940.	. •	- •			
		TANG	. V.	ni et al "Cancera	tion of multiple electrons	rave neina mia	rofahricated emitter arrove		
			TANG, Keqi, et al., "Generation of multiple electrosprays using microfabricated emitter arrays for improved mass spectrometric sensitivity". Anal. Chem. 2001) 73:1658-1663.						
	_	TANG, Ning, et al., "Current developments in SELDI affinity technology". Mass Spectrometry							
İ		Reviev	ws (2	004), 23:34-44.					
		томі	INS	ON Andy I et al	"Investigation of drug	metabolism us	ing capillary electrophoresis		
i	with photodiode array detecti Electrophoresis (1994), 13:6/								
1						, , , , , ,	,		
		TOMI	INS	ON, Andy J. et al	, "Utility of Membrane P		n - Capillary Electrophoresis		
		- Mass	Spe	ctrometry in Over	coming Limited Sample	Loading for A	nalysis of Biologically .		
		Derive	d Dr	ug Metabolites, P	eptides, and Proteins". J	Am Soc Mass	Spectrom (1997), 8:15-24.		
							ale separations and other	:	
		miniaturized devices with electrospray mass spectrometry". Anal. Chem. (2001) 73:632-638. WANG, Michael Z., et al., "Analysis of human serum proteins by liquid phase isoelectric							
					laser desorption/ionization	n-mass spectr	ometry". Proteomics (2003),		
		3:1661							
							direct electrospray ionization-		
		mass s	pecu	ometry". Electro	phoresis (2000) 21:191-1	97.			
		<u> </u>							
	_						n/ionization (SELDI) mass		
							rostate cancer biomarkers in		
		1			Prostate Cancer and Prost				
1	-			1 <u>8, et at , "Munic</u> (2/1/1997), 69(3)	hannel microchip electro	spray mass spe	ectrometry Analytical		
		Chemi	ou y		T&U-7JU.	•			
		ZHAN	IG, e	al., "A microdev	ice with integrated liquid	junction for fa	acile peptide and protein		
[horesis/electrospray mas	s spectrometry	". Anal. Chem. (2000)		
		72:101							
					cated devices for capillar		sis-electrospray mass		
		spectro	ometi	y . Anai. Chem.	(8/1/99), 71(5)3258-3264	•			
Examiner	Τ	11		11/		Date NO	T 5/2/2/2/		
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Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-4,977,320	12-11-1990	Chowdhury et al.	
		US-5,045,694	09-03-1991	Beavis et al.	
HV -		US-5,245,186	09-14-1993	Chait et al.	
10/1		US-5,396,065	03-07-1995	Myerholtz et al.	
MI.		US-5,545,304	08-13-1996	Smith et al.	
199 -		US-5,572,022	11-05-1996	Schwartz et al.	
HW -		US-5,834,771	11-10-1998	Yoon et al.	
MI		US-5,917,185	06-29-1999	Yeung et al.	
dal		US-5,939,612	08-17-1999	Wylic et al.	
192-		US-5,994,695	11-30-1999	Young	
011		US-6,075,244	06-13-2000	Baba et al.	·- ·- ·- ·-
1/	 	US-6,091,502	07-18-2000	Weigl et al.	
M		US-6,107,628	08-22-2000	Smith et al.	
111		US-6,175,112-B1	01-16-2001	Karger et al.	
		US-6,207,954-B1	03-27-2001	Andrien, Jr. et al.	
611	-	US-6,300,626-B1	10-09-2001	Brock et al.	
INI	-	US-6,305,975-B1	10-23-2001	Steiner	
W/1	 	US-6,316,768-B1	11-13-2001	Rockwood et al.	
MAI		US-6,369,383-B1	04-09-2002	Comish et al.	
1111		US-6,541,768-B2	04-01-2003	Andrien, Jr. et al.	
		US-6,614,020-B2	09-02-2003	Cornish	
M/		US-2002/0054289-A1	05-09-2002	Thibault et al.	
NO2	 	US-2003/0034449-A1	02-20-2003	Miller et al.	· · · · · · · · · · · · · · · · · · ·
M		US-2003/0052269-A1	03-20-2003	Apffel, Jr. et al.	
Mar		US-2003/0071206-A1	04-17-2003	Belov et al.	
611		US-2003/0146377-A1	08-07-2003	Miller et al.	
972		US-2003/0146392-A1	08-07-2003	Kimmel et al.	
	 				
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conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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1//		(1998	70:31	735-3741.		nass spectrometry". Anal. Chem.				
9/		chron	OVEY, Thomas R., et al., "Structural characterization of protein tryptic peptides liquid via a tromatography/mass spectrometry and collision-induced dissociation of their doubly charged olecular ions". Anal. Chem. (1991), 63:1193-1200.							
7/2		high-:	speed (1611-1	detector for capi 617.	, et al., "Hadamard transform time llary-format separations". Analyt	ical Chemistry (April 1, 2002),				
192	•	specti	romete	r with orthogon	x-assisted laser/desorption ioniza al acceleration geometry: prelimi pectrometry (1996) 10:1524-1530	nary results". Rapid				
12		< <htt< td=""><td>p://ww</td><td>w.emsl.pnl.gov</td><td>Northwest Laboratory, printed fro 2080/docs/msd/fticr/OTOF_Desc</td><td>cription.html>>.</td><td></td></htt<>	p://ww	w.emsl.pnl.gov	Northwest Laboratory, printed fro 2080/docs/msd/fticr/OTOF_Desc	cription.html>>.				
		(2000	eration) 14:6	time-of-flight n 16-617.	nass spectrometers". Rapid Comr	larised grid geometry' for orthogonal nunications in Mass Spectrometry				
19/		monit	toring	trace organics in		nology (2000) 41(10-11):373-380.				
		ioniza	ation-ti	ime-of-flight".	ution and mass accuracy in matrix I. Am. Soc. Mass Spectrom (1998)), 9:892-911.				
		specti	rometr	y with in-source	'Using accurate mass electrospray collision-induced dissociation to A (2003) 1020:11-26.	sequence peptide mixtures".				
		ZARI	E, Rich of the	nard N., et al., "I time". Stanford	Hadamard transform time-of-fligh University, Department of Chem	t mass spectrometry: more signal, istry, 28 pages.				
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